

Claims

[c1] What is claimed is:

1. A method for controlling a transmitter and a receiver in a wireless communication system to handle a transmission window size change procedure comprising following steps:

(a) driving the receiver to deliver a control message having a window size parameter to the transmitter for adjusting a transmission window size of the transmitter; and

(b) when the transmitter receives the control message, driving the transmitter to output an acknowledgement message to the receiver and adjust the transmission window size according to the window size parameter.

[c2] 2. The method of claim 1 further comprising driving the receiver to retransmit the control message to the transmitter if the receiver does not receive the acknowledgement message within a predetermined period of time.

[c3] 3. The method of claim 2 wherein step (a) further comprising driving the receiver to clock the predetermined period of time when the control message is outputted.

- [c4] 4. The method of claim 2 wherein the predetermined period of time is set to be larger than or equal to the roundtrip transmission delay between the receiver and the transmitter.
- [c5] 5. The method of claim 1 wherein step (b) further comprises driving the transmitter to add a window size acknowledgement parameter to the acknowledgement message, wherein the window size acknowledgement parameter corresponds to the window size parameter used in step (b).
- [c6] 6. The method of claim 5 further comprises the step of: the window size acknowledgement parameter is set equal to the window size parameter.
- [c7] 7. The method of claim 5 further comprises driving the receiver to check a value of the window size acknowledgement parameter carried by the acknowledgement message for determining if the acknowledgement message corresponds to the control message, and driving the receiver to discard the acknowledgement message from the transmitter if the window size acknowledgement parameter carried by the acknowledgement message does not match the window size parameter carried by the control message.

- [c8] 8. The method of claim 1 further comprises driving the receiver to adjust a receiving window of the receiver according to the window size parameter when the receiver receives the acknowledgement message.
- [c9] 9. The method of claim 8 wherein when the receiver receives a PDU having a sequence number outside the receiving window, the receiver discards the PDU.
- [c10] 10. A method for controlling a transmitter and a receiver in a wireless communication system to handle a transmission window size change procedure comprising following steps:
- (a) driving the receiver to deliver a control message to the transmitter for adjusting a transmission window size of the transmitter; and
 - (b) driving the receiver to adjust a receiving window size according to the window size parameter after a predetermined period of time, wherein the receiver discards a PDU having a sequence number outside the receiving window.
- [c11] 11. The method of claim 10 wherein step (a) further comprising driving the receiver to clock the predetermined period of time when the control message is outputted.

- [c12] 12. The method of claim 10 wherein the predetermined period of time is set to be larger than or equal to the roundtrip transmission delay between the receiver and the transmitter.
- [c13] 13. A method for controlling a transmitter and a receiver in a wireless communication system to handle a transmission window size change procedure comprising following steps:
- (a) driving the receiver to deliver a control message having a window size parameter to the transmitter for reducing a transmission window size of the transmitter;
 - (b) driving the receiver to generate an intended receiving window according to the window size parameter; and
 - (c) after a predetermined period of time, driving the receiver to retransmit the control message to the transmitter if the receiver receives a PDU having a sequence number outside the intended receiving window.
- [c14] 14. The method of claim 13 wherein step (a) further comprising driving the receiver to clock the predetermined period of time when the control message is outputted.
- [c15] 15. The method of claim 13 wherein the predetermined period of time is set to be larger than or equal to the roundtrip transmission delay between the receiver and

the transmitter.

[c16] 16. A method for controlling a transmitter and a receiver in a wireless communication system to handle a transmission window size change procedure comprising following steps:

(a) driving the receiver to deliver a control message to the transmitter for increasing a transmission window of the transmitter;

(b) driving the receiver to use a TTI counter to count a number of transmission time intervals, called TTI hereafter, in which no new PDU allowed by the receiving window is received after a predetermined period of time; and

(c) driving the receiver to retransmit the control message to the transmitter and reset the TTI counter to a value of zero if the TTI counter reaches a predetermined value.

[c17] 17. The method of claim 16 wherein step (b) further comprises driving the receiver to count each group of the contiguous TTIs in which no new PDU allowed in the receiving window is received as one.

[c18] 18. The method of claim 16 further comprising blocking the receiver from retransmitting the control message after the same control message has been retransmitted for a predetermined number of times.

